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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------|---------------------|------------------|
| 10/758,568 | 01/14/2004 | Michiaki Omura | P/1929-91 | 5922 |
| 2352 7590 11/22/2010 OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403 | | | | |
| EXAMINER JOO, JOSHUA | | | | |
| ART UNIT 2445 | | PAPER NUMBER | | |
| MAIL DATE 11/22/2010 | | DELIVERY MODE PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/758,568

Applicant(s)

OMURA, MICHIAKI

Examiner

JOSHUA JOO

Art Unit

2445

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

This Office action is in response to Applicant's communication filed on August 27, 2010.

Claims 1-5, 7-9 are pending in the application.

Response to Arguments

Applicant's arguments filed August 27, 2010 have been fully considered but they are not persuasive. Applicant argued that:

(1) Tinsley does not disclose or suggest that the gateway is configured to detect the conversion-process information after the terminal of the first network and the terminal of the second network have been connected to each other.

In response, Examiner respectfully disagrees that Tinsley does not teach the limitation. Tinsley teaches,

"The de-capsulated accounting message is then passed to an adjacent Usage and Measurements process 406 where usage and measurement statistics are created and stored in a Usage and Measurements Database (UMD) 410, such as that shown in FIG. 8." (col. 11, lines 31-35)

"In any event, such statistics could include information associated with the time-of-day that a message was received, the duration of a "call" or communication, general quality of service (QoS) indicators associated with a "call" or communication, information related to or identifying the type of service that is associated with a "call" or communication... Such usage information could be used to bill a subscriber at different rates depending upon the type of service requested." (col. 11, lines 47-56).

Tinsley teaches of a gateway sending a message comprising information pertaining to duration of a call or communication. To determine duration, a length and end must be determined. The gateway must have collected information after the terminals connected to each other so that the gateway could determine a length of the call/communication and when the call/communication ended. The gateway detected the conversion-process information after the terminals have connected.

Furthermore, Kalavade also teaches of a gateway providing connection between a LAN and a WAN and collecting usage information between terminals. The gateway determines usage information

such as duration and volume of data (Paragraphs 0061, 0068), which would involve determining information after the terminals connected to each other.

Claim Rejections - 35 USC § 101

Rejection of claims 1-7 under 35 USC 101 set in the Office action dated March 27, 2010 is withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tinsley, US Patent No. 6,967,956 (Tinsley hereinafter), in view of Kimura et al. US Publication No. 2002/0143975 (Kimura hereinafter) and Kalavade et al. US Publication No. 2003/0051041 (Kalavade hereinafter).

As per claim 1, Tinsley teaches substantially the invention as claimed including a gateway for connecting a first network and a second network using a signal format different from that of the first network, said gateway comprising an operation unit that comprises:

a conversion section configured to convert a first signal used in the first network to a second signal used in the second network, and the second network used in the second network to the first signal used in the first network, when communication is performed between a terminal connected to the first

network and a terminal connected to the second network (col. 7, lines 23-27. Route packets between two dissimilar networks. col. 8, lines 25-36; col. 12, lines 64-67. Translate first signal to a second signal.);

a detection section configured to detect as conversion-process information (col. 10, lines 31-38; col. 13, lines 26-36. Generate accounting message.)

a network-connecting section configured to connect to at least one of the first network and the second network and configured to transmit conversion-process information to a fee-charging system (col. 7, lines 50-55; col. 11, lines 1-5, 20-35, 54-67; col. 13, lines 56-67. Communicate messages to server. Create usage and measurement data for billing.),

wherein the gateway is configured to detect the conversion-process information after the terminal of the first network and the terminal of the second network have been connected to each other (col. 11, lines 20-35, 46-55. Message used to create usage information such as duration of call/communication.).

Tinsley does not specifically teach of a detecting as information a time said conversion section spent to convert the first signal or the second signal. Tinsley teaches of a fee-charging system but does not specifically teach that the fee-charging system is of the first network or the second network.

Kimura teaches of tracking a time spent on converting data to charge a fee (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to detect as conversion-process information, time spent on converting data to charge a fee. The motivation for the suggested combination is that Kimura's teachings would improve Tinsley's teachings by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Kalavade teaches of a gateway connecting a first network and a second network and providing information to a fee-charging system of the first or second network (Paragraphs 0012, 0015; claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the fee-charging system to be of a first network or the second network. The motivation for the suggested combination is that Kalavade's teachings would improve the suggested system by utilizing existing billing systems to provide services to users (Paragraph 0067, 0220).

As per claim 5, Tinsley teaches substantially the invention as claimed including a system for charging fees for communication between networks of different types, said system comprising:

a first terminal configured to perform a call control, the first terminal being connected to a first network; a second terminal operable to respond to the call control performed by the first terminal, the second terminal being connected to a second network (col. 4, lines 40-45, col. 7, lines 23-27. Route messages between two dissimilar networks. col. 3, lines 24-27, 35-41. Signaling for call control. col. 1, lines 59-66; col. 11, lines 47-56. Call control, e.g. setup.); and

a gateway comprising an operation unit configured to connect the first network and the second using a second signal format different from a first signal format used by the first network (col. 7, lines 23-27; col. 8, lines 25-36. Gateway connects two dissimilar networks.);

the gateway configured to convert a first signal of the first signal format from the first network to a second signal of the second signal format of the second network and to transmit the second signal to the second network, to convert the second signal from the second network to the first signal of the first network and to transmit the first signal to the first network, detects as conversion-process information, and transmits the conversion-process information to the fee-charging system (col. 8, lines 25-36; col. 12, lines 64-67. Translate first signal to a second signal.), and

the fee-charging system configured to perform a fee-charging process in accordance with the conversion-process information, to charge a fee for a user of the first terminal (col. 11, lines 1-5, 20-35,

54-67; col. 13, lines 56-67. Communicate messages to server. Create usage and measurement data for billing.),

wherein the gateway is configured to detect the conversion-process information after the terminal of the first network and the terminal of the second network have been connected to each other (col. 11, lines 20-35, 46-55. Message used to create usage information such as duration of call/communication.).

Tinsley does not specifically teach the first network comprising a fee-charging system and detect as information, a time spent to convert the first signal or the second signal.

Kimura teaches of tracking a time spent on converting data to charge a fee (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to detect as conversion-process information, time spent on converting data to charge a fee. The motivation for the suggested combination is that Kimura's teachings would improve Tinsley's teachings by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Kalavade teaches of a gateway connecting a first network and a second network and providing information to a fee-charging system of the first network (Paragraphs 0012, 0015; claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the fee-charging system to be of the first network. The motivation for the suggested combination is that Kalavade's teachings would improve the suggested system by utilizing existing billing systems to provide services to users (Paragraph 0067, 0220).

As per claim 8, Tinsley teaches substantially the invention as claimed including a method of charging fees for communication between networks of different types, comprising the steps of:

connecting a first network and a second network using a signal format different from that of the first network by means of a gateway configured to convert a first signal from a first terminal connected to the first network to a second signal suitable for the signal format of the second network and to convert the second signal from a second terminal connected to the second network to the first signal suitable for the signal format of the first network (col. 7, lines 23-27; col. 8, lines 25-36. Gateway connects two dissimilar networks. col. 8, lines 25-36; col. 12, lines 64-67. Translate first signal to a second signal.);

detecting as conversion-process information, a first or second signal having been transmitted after the first terminal and the second terminal have been connected to each other by the gateway (col. 1, lines 59-66, col. 8, lines 25-30. Signals. col. 11, lines 20-35, 46-55. Message used to create usage information such as duration of call/communication.);

transmitting the conversion-process information to a fee-charging system, by the gateway (col. 11, lines 1-5, 20-35, 54-67; col. 13, lines 56-67. Communicate messages to server.);

charging a fee for a user of a calling-side terminal, the calling-side terminal being one of the first terminal and the second terminal, said fee being fixed or calculated on a basis of a communication time based on the conversion-process information by the fee-charging system (col. 11, lines 1-5, 20-35, 47-67; col. 13, lines 56-67. Generate billing to subscriber based on usage information, e.g. "call", duration.).

Tinsley does not specifically teach of detecting information a time spent to convert the first or second signal said signal. Tinsley teaches of a fee-charging system but does not specifically teach that the fee-charging system is of the network to which the first terminal or the second terminal that is calling side is connected.

Kimura teaches of tracking a time spent on converting data to charge a fee (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to detect as conversion-process information, time spent on converting data to

charge a fee. The motivation for the suggested combination is that Kimura's teachings would improve Tinsley's teachings by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Kalavade teaches of a gateway providing information to a fee-charging system of a network of a terminal that is a calling side (Paragraphs 0012, 0015; claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the fee-charging system to be of a network that a terminal that is calling side is connected such that the information is sent to a fee-charging system of a network of a calling side. The motivation for the suggested combination is that Kalavade's teachings would improve the suggested system by utilizing existing billing systems to provide services to users (Paragraph 0067, 0220).

As per claim 2, Tinsley, Kimura, and Kalvade teach the gateway according to claim 1. Tinsley further teaches wherein said conversion section converts at least one of a call-control signal generated by a call-connection signaling, an audio signal generated by an audio CODEC and a video signal generated by a video CODEC (col. 8, lines 19-32; claim 5. Call signaling, call control, e.g. SS7, NCCP.).

As per claim 9, Tinsley, Kimura, and Kalvade teach the method according to claim 8, wherein the conversion-process information includes at least one of the time spent and the amount of data (col. 11, lines 36-40, 47-51. Usage information includes counts of message received and duration of call.) but not specifically at least one of time spent to convert signals in an audio CODEC and VIDEO CODEC and amount of data converted.

Kimura teaches of conversion-process information including an amount of data converted (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the conversion-process information to include at least an amount of data converted. The motivation for the suggested combination is that Kimura's teachings would improve the suggested system by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tinsley, in view of Kimura, Kalavade, and Jabri, US Publication No. 2003/0028643 (Jabri hereinafter).

As per claim 3, Tinsley, Kimura, and Kalavade teach the gateway according to claim 2. Tinsley further teaches wherein said conversion section comprises a signaling gateway unit configured to convert the call-control and, wherein said detected section detects the conversion-process information used in a conversion process in the gateway unit (col. 8, lines 19-32; Claim 5. Call signaling, call control, E.g. SS7, NCCP.). Tinsley teaches of providing translation for H.323 protocol but does not explicitly teach of a media gateway unit configured to convert the audio signal and the video signal. Tinsley teaches of conversion process but not specifically in the media gateway unit.

Jabri teaches of a media gateway for converting audio codec signal and video codec signal (Paragraphs 0008, 0014, 0049).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the conversion section as taught by the suggested system to comprise a media unit which converts the audio codec signal and the video codec signal as taught by Jabri. The motivation for the suggested combination is that Jabri's teachings would improve the suggested system by enhancing the gateway's capabilities, thus enabling the gateway to handle additional types of protocols and processing different media types.

As per claim 7, Tinsley, Kimura, and Kalavade teach the system according to claim 5, wherein the gateway detects the conversion-process information about signals but not specifically about at least one a signal generated by an audio CODEC and a signal generated by a video CODEC.

Jabri teaches of a media gateway that converts signals generated by audio codec and video codec (Paragraphs 0008, 0014, 0049).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the signals to include a signal generated by an audio CODEC and signal generated by video CODEC. The motivation for the suggested combination is that Jabri's teachings would improve the suggested system by enhancing the gateway's capabilities, thus enabling the gateway to handle additional types of protocols and processing different media types.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tinsley, in view of Kimura, Kalavade, Kauhanen, WO 02/052825 (Published 07/04/2002, Previously cited, Kauhanen hereinafter), and Jabri.

As per claim 4, Tinsley does not specifically teach the gateway according to claim 2 or 3, wherein the conversion of the call-control signal is conversion between a Q.931 signal and an SIP signal, the conversion of the audio signal is conversion between an AMR bit stream and a G.723.1 signal, and the conversion of the video signal is conversion between an MPEG4 bit stream and an H.263 signal.

Kauhanen teaches of conversion between a Q.931 signal and a SIP signal (Page 18, lines 18-22, Page 20, lines 1-3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the call-control signal to be a conversion between Q.931 signal and a SIP signal. The motivation for the suggested combination is that Kauhanen's teachings would improve the

suggested system by enhancing the gateway's capabilities and enabling handling of additional types of protocols and processing different media types or components (Page 4, lines 16-20).

Jabri teaches of conversion of audio signal between an AMR bit stream and a G.723.1 signal and conversion of video signal between an MPEG4 bit stream and an H.263 signal (Paragraph 0014).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to enable conversion of an audio signal between an AMR bit stream and a G.723.1 signal and conversion of a video signal between an MPEG4 bit stream and an H.263 signal. The motivation for the suggested combination is that Jabri's teachings would improve the suggested system by enhancing the gateway's capabilities, thus enabling the gateway to handle additional types of protocols and processing different media types.

Conclusion

Examiner has cited particular sections of the reference(s) that are applied to the claims. While the sections are cited for convenience and are representative of the teachings of the prior art, other sections of the reference(s) may be relevant and applicable to the claims. It is respectfully requested that Applicant fully consider the reference(s) in its entirety when responding to the Office action.

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Friday 7:30AM to 4:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew T. Caldwell can be reached on 571 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2445

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Joshua Joo/
Examiner, Art Unit 2445